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U.S. Patent Application Serial No. **09/975,560**  
Response dated March 9, 2004  
Reply to OA of November 10, 2003

**REMARKS**

Claims 1-3, 5, and 8-20 are pending in this application. Claims 4, 6 and 7 are canceled without prejudice or disclaimer. Claims 1-3, 8, 11 and 16 are amended by this amendment and new claims 18-20 are added.

In the amendment to claim 1, the “comprising” transitional phrase is amended to –consisting of–.

Claims 2 and 11 are also amended to have the “consisting of” transitional phrase and are amended to be in independent form, since these claims introduce additional components (D) and (E), which cannot be present in claims properly dependent from claim 1.

In addition, claims 1-3 are amended to change “an allyl-based prepolymer” to --a diallylphthalate-based prepolymer-. Support for this limitation may be found in claim 4, which inherently requires that the allyl-based prepolymer be a diallylphthalate-based prepolymer.

Claim 8 has been amended to depend from claim 1.

Claim 16 has been amended to be a multiply dependent claim, adding dependency from claim 17.

Support for new claims 18-20 may be found on pages 41-42 of the specification.

**Claims 1-4, 6-10, 13, 14 and 16 are rejected under 35 U.S.C. §102(a) as being fully anticipated by Fitchett et al. (EP 0342812). (Office action paragraph no. 3)**

The rejection of pending claims 1-3, 8-10, 13, 14 and 16 over Fitchett et al. is overcome by

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the amendments to claims 1 and 2.

The Examiner cites example 1 (page 11) of Fitchett et al. as teaching a prepolymer containing diallylphthalate, allyl methacrylate and vinylidene chloride which is added to an acrylate/triacrylate monomer composition and a photoinitiating system.

As amended, claim 1 recites a composition **consisting of** allyl-based prepolymer (A), (meth)acrylate compound (B) and photo-polymerization initiator (C). Similarly, claim 2 recites a composition **consisting of** allyl-based prepolymer (A), (meth)acrylate compound (B) and photo-polymerization initiator (C) and solvent-soluble thermoplastic resin (D). By contrast, Fitchett's Example 1 includes vinylidene chloride, acrylonitrile and acrylic acid, which are not recited as components in claim 1. Fitchett et al. therefore does not disclose the recitation of independent claims 1 or 2, or of dependent claims 8-10, 13, 14.

Fitchett et al. does not disclose the refractive index limitation of claim 17. Claim 16, depending from claim 1 or claim 17, is therefore also not anticipated by Fitchett et al.

**Claims 1-4, 6-10, 13, 14 and 16 are rejected under 35 U.S.C. §103(a) as being unpatentable over Fitchett et al. (EP 0342812). (Office action paragraph no. 4)**

The rejection of claims 1-3, 8-10, 13, 14 and 16 under 35 U.S.C. §103(a) is overcome by the amendments to claims 1 and 2. Applicants have noted above that Fitchett et al. does not disclose a composition "consisting of" the elements as recited in claim 1 or claim 2. Applicants respectfully submit that Fitchett et al. does not suggest or motivate a composition as recited in the claims, and

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that claims 1-3, 8-10, 13, 14 and 16 are novel and non-obvious over the reference.

**Claims 1-4, 7-10, 13, 14 and 16-17 are rejected under 35 U.S.C. §102(b) as being fully anticipated by Kamayachi et al. (EP 0323563). (Office action paragraph no. 5)**

The rejection is overcome by the amendments to the claims.

With regard to claims 1-3, 8-10, 13 and 14, as noted above, base claims 1 and 2 have been amended to have a “consisting of” transitional phrase. The Examiner cites Example 4 of Kamayachi et al. as teaching a diallylisophthalate polymer, a resin derived from an acrylate, a triacrylate, a diacrylate and a photocuring agent. As can be seen in the Table on page 15 of Kamayachi et al., numerous other components, including solvent, are also present in Example 4. Applicants submit that Kamayachi et al. does not disclose or suggest a composition having only components (A), (B) and (C) as in present claim 1, or only components (A), (B), (C) and (D) as in present claim 2.

Applicants also submit that Kamayachi et al. does not disclose the refractive index limitation of claim 17, and claims 16 and 17 are therefore not anticipated by the reference.

**Claims 1, 3, 4, 7-10 and 16 are rejected under 35 U.S.C. §102(b) as being fully anticipated by JP 10-237140. (Office action paragraph no. 6)**

The rejection is overcome by the amendments to the claims. As noted above, base claims 1 and 2 have been amended to have a “consisting of” transitional phrase. In addition, these claims have been amended to recite a diallylphthalate-based prepolymer.

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The Examiner cites JP'140 as teaching allyl prepolymers of MW 20,000 to 30,000 and acrylate monomers such as DPBA and MANDA.

Applicants note that JP'140 requires the allyl compound shown in formula (1) or (2) of the reference. However, this is not a diallylphthalate, and there is no teaching in the reference for a diallylphthalate monomer.

Moreover, the reference does not disclose the refractive index of claim 17, from which claim 16 depends in part.

Applicants therefore submit that pending claims 1, 3, 8-10 and 16, as amended, are novel and non-obvious over JP 10-237140.

**Claims 1, 3, 4, 7-10 and 16-17 are rejected under 35 U.S.C. §103(a) as being unpatentable over JP 58-199341.** (Office action paragraph no. 7)

The rejection of pending claims 1, 3, 8-10 and 16-17 is overcome by the amendments to the claims.

With regard to claims 1 and 17, Applicants note that according to the Abstract of this reference, component (B) is a “polyethylene glycol diacrylate” and is not required to be a meth(acrylate) as in the present claims.

Applicants also note that there is no disclosure in the English Abstract of the reference of the specific diallylphthalate prepolymers recited in claim 8, nor of the limitation on refractive index recited in claim 17.

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**Claims 1, 3, 4, 7-10 and 16-17 are rejected under 35 U.S.C. §103(a) as being unpatentable over JP 02-135350.** (Office action paragraph no. 8)

The rejection of pending claims 1, 3, 8-10 and 16-17 is overcome by the amendments to the claims.

JP 02-135350 discloses a photosensitive resin composition comprising a prepolymer of an unsaturated compound, a monomer of a polyfunctional unsaturated compound; a photoradical polymerization initiator; epoxy resin and a photo cationic polymerization initiator (English abstract). Therefore, the composition of JP'350 requires epoxy resin.

However, base claim 1, with the amendment to recite “consisting of”, cannot include an epoxy resin component. Moreover, there is no disclosure of the refractive index limitation of claim 17. Therefore, pending claims 1, 3, 8-10 and 16-17 are novel and non-obvious over this reference.

**Claims 1, 3, 4 and 7-16 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over JP 56065010.** (Office action paragraph no. 9)

The rejection of pending claims 1, 3, 8-10 and 16-17 is overcome by the amendments to the claims.

The English abstract of JP 56065010A discloses a composition in which component (c) is an unsaturated polyester. This does not clearly correspond to any of the components of claim 1, as amended.

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Moreover, the English abstract of JP 56065010A discloses a non-solvent type resin composition in which component (A)(b) is a matter solid selected from (1) p-phenylstyrene, m-phenylstyrene, p-hexadecyl stryrene, (2) crotonic acid, maleic acid, (3) p-cyclohexylphenyl methacrylate, pentaerythritol tetra acrylate, tribromophenyl acrylate and (4) vinyl isophthalate, allyl stearate. Of these, only the p-cyclohexylphenyl methacrylate could correspond to a component in claim 1.

The abstract of the reference does not disclose the refractive index limitation of claim 17. Applicants therefore submit that pending claims 1, 3 and 8-16 are novel and non-obvious over this reference.

**Claims 1, 3, 4 and 7-17 are rejected under 35 U.S.C. §102(b) as being fully anticipated by Takhashi et al. (EP 0249468).** (Office action paragraph no. 10)

The rejection of pending claims 1, 3, and 8-17 is respectfully traversed.  
The Examiner cites Example 6 in Table 1 of the reference (page 8). The Examiner cites component (B) which is a pentaerythritol diacrylate monomer, noting that (B-1) and (B-2) are diacrylate monomers. However, both claims 1 and 17 require that component (B) be a (meth)acrylate-based compound. The present claims are therefore not anticipated by these examples or by the general disclosure of the reference, which does not require that component (B) be a methacrylate ester.

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Moreover, there appears to be no disclosure in the reference of the refractive index limitation of claim 17.

In addition, the amendment to claim 1 excludes components other than (A), (B) and (C). The Examples in Takahashi et al. all have extender pigment (talc).

Applicants therefore submit that pending claims 1, 3, and 8-17 are not anticipated by Takahashi et al.

**Claim 5 is objected to as being dependent upon a rejected claim, but allowable over the prior art of record.** (Office action paragraph no. 12)

The objection is overcome by the amendment to claim 1, from which claim 5 depends. Applicants believe that claim 1, as amended, is novel and non-obvious over the cited references.

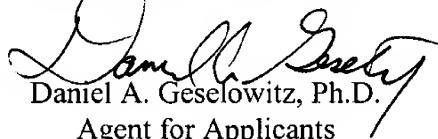
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If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants undersigned agent at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP

  
Daniel A. Geselowitz, Ph.D.  
Agent for Applicants  
Reg. No. 42,573

DAG/plb  
Atty. Docket No. **990952A**  
Suite 1000  
1725 K Street, N.W.  
Washington, D.C. 20006  
(202) 659-2930



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